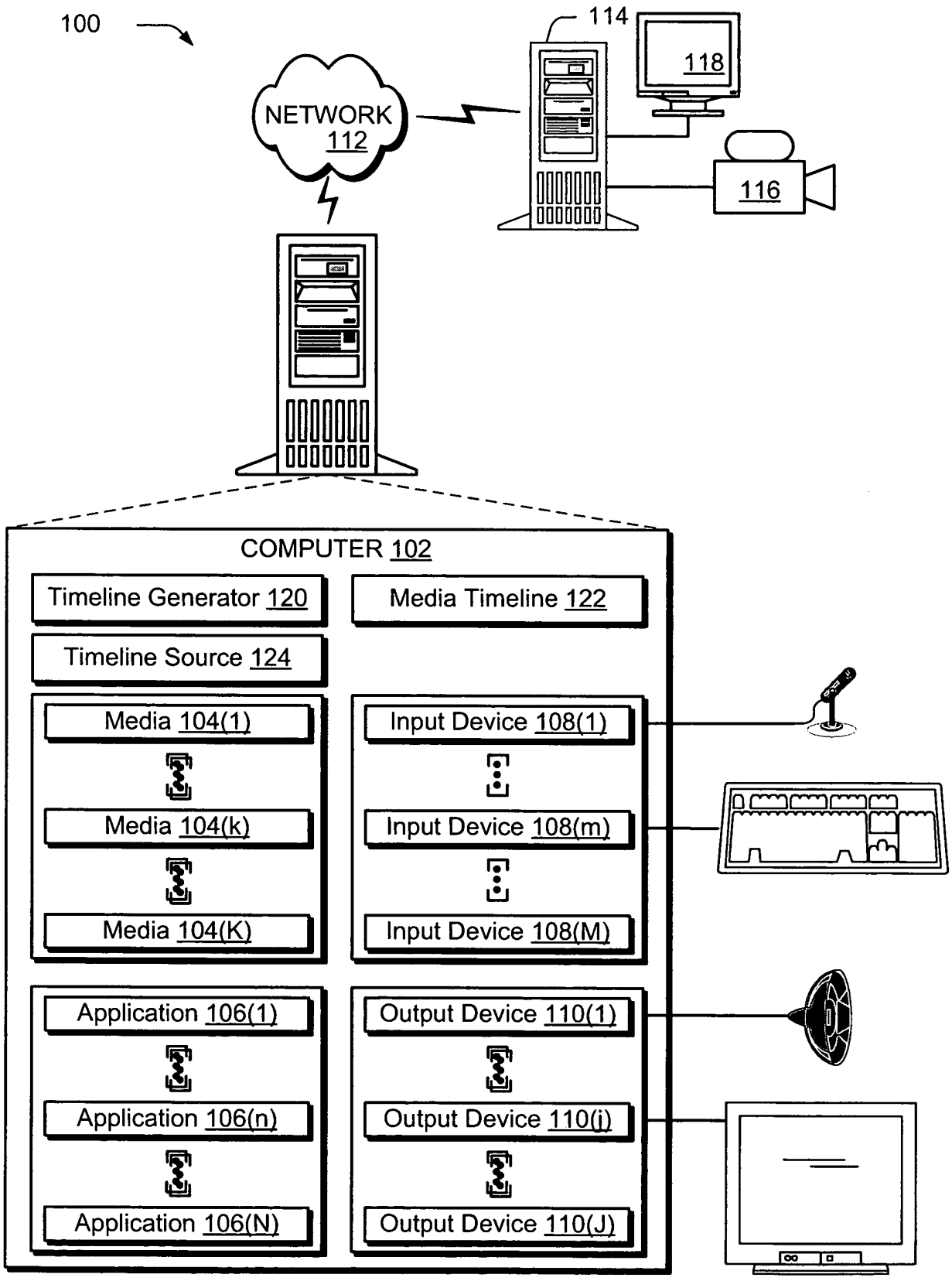
100
114
118
NETWORK
112
116
COMPUTER 102
Timeline Generator 120
Media Timeline 122
Timeline Source 124
Media 104(1)
Media 104(k)
Media 104(K)
Input Device 108(1)
Input Device 108(m)
Input Device 108(M)
Application 106(1)
Application 106(n)
Application 106(N)
Output Device 110(1)
Output Device 110(j)
Output Device 110(J)

Fig. 1

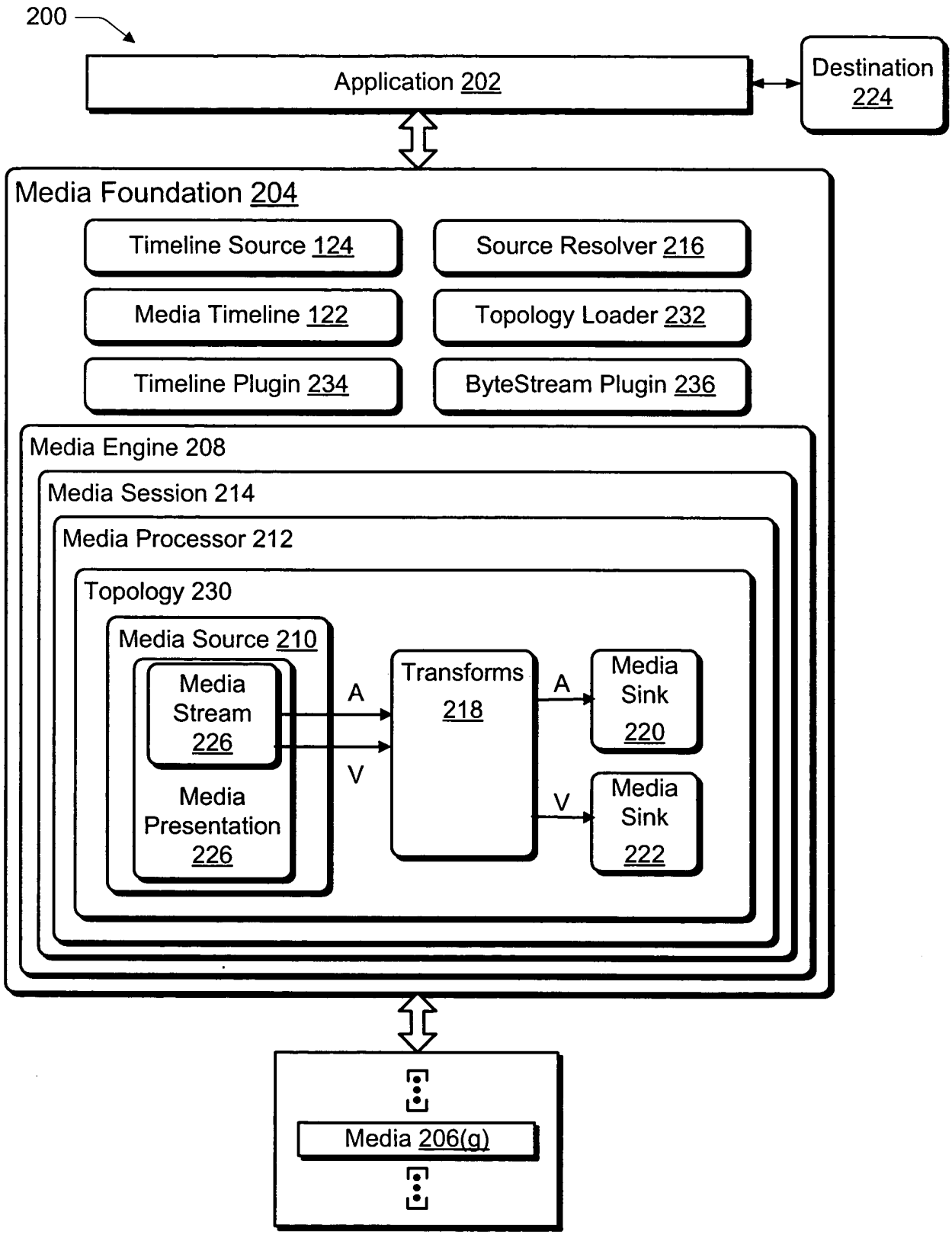
200
Application 202
Destination 224
Media Foundation 204
Timeline Source 124
Source Resolver 216
Media Timeline 122
Topology Loader 232
Timeline Plugin 234
ByteStream Plugin 236
Media Engine 208
Media Session 214
Media Processor 212
Topology 230
Media Source 210
Media Stream 226
Media Presentation 226
A
V
Transforms 218
A
V
Media Sink 220
Media Sink 222
Media 206(g)

Fig. 2

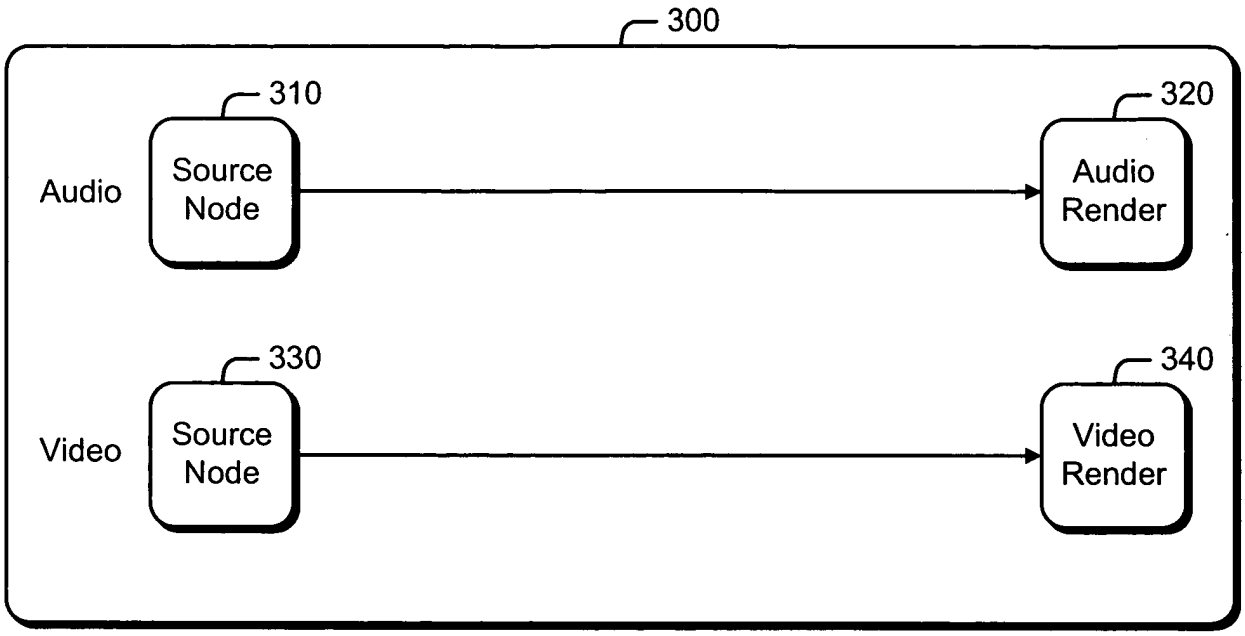
300
310
320
Audio
Source Node
Audio Render
330
340
Video
Source Node
Video Render

Fig. 3A

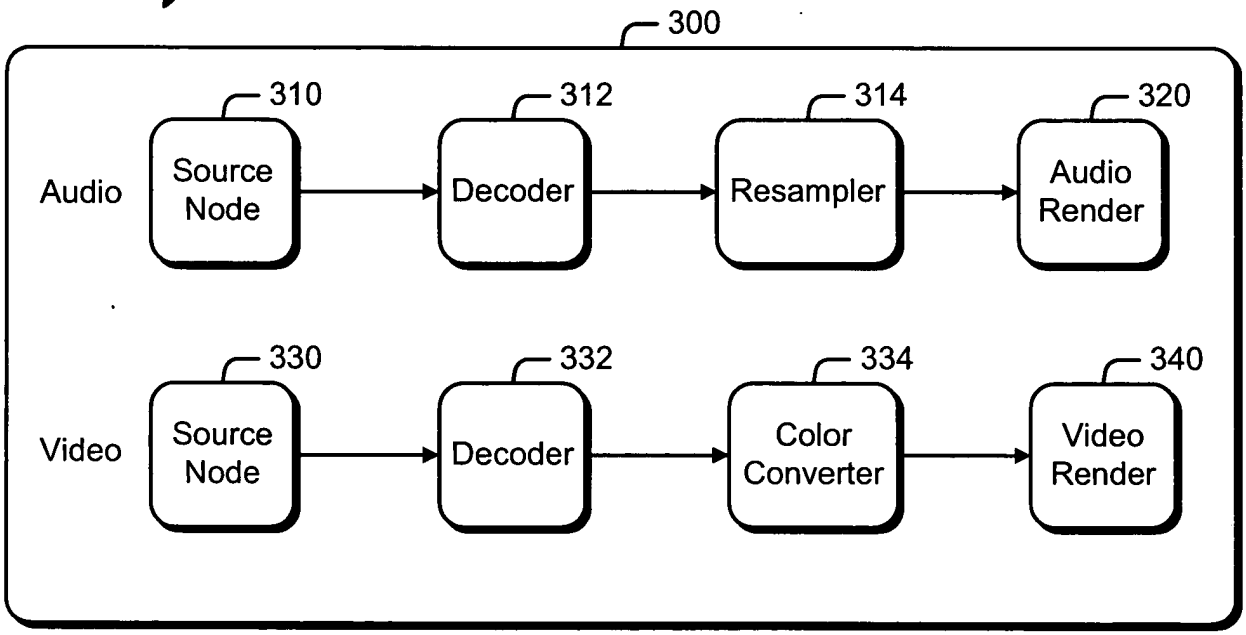
300
310
312
314
320
Audio
Source Node
Decoder
Resampler
Audio Render
330
332
334
340
Video
Source Node
Decoder
Color Converter
Video Render

Fig. 3B

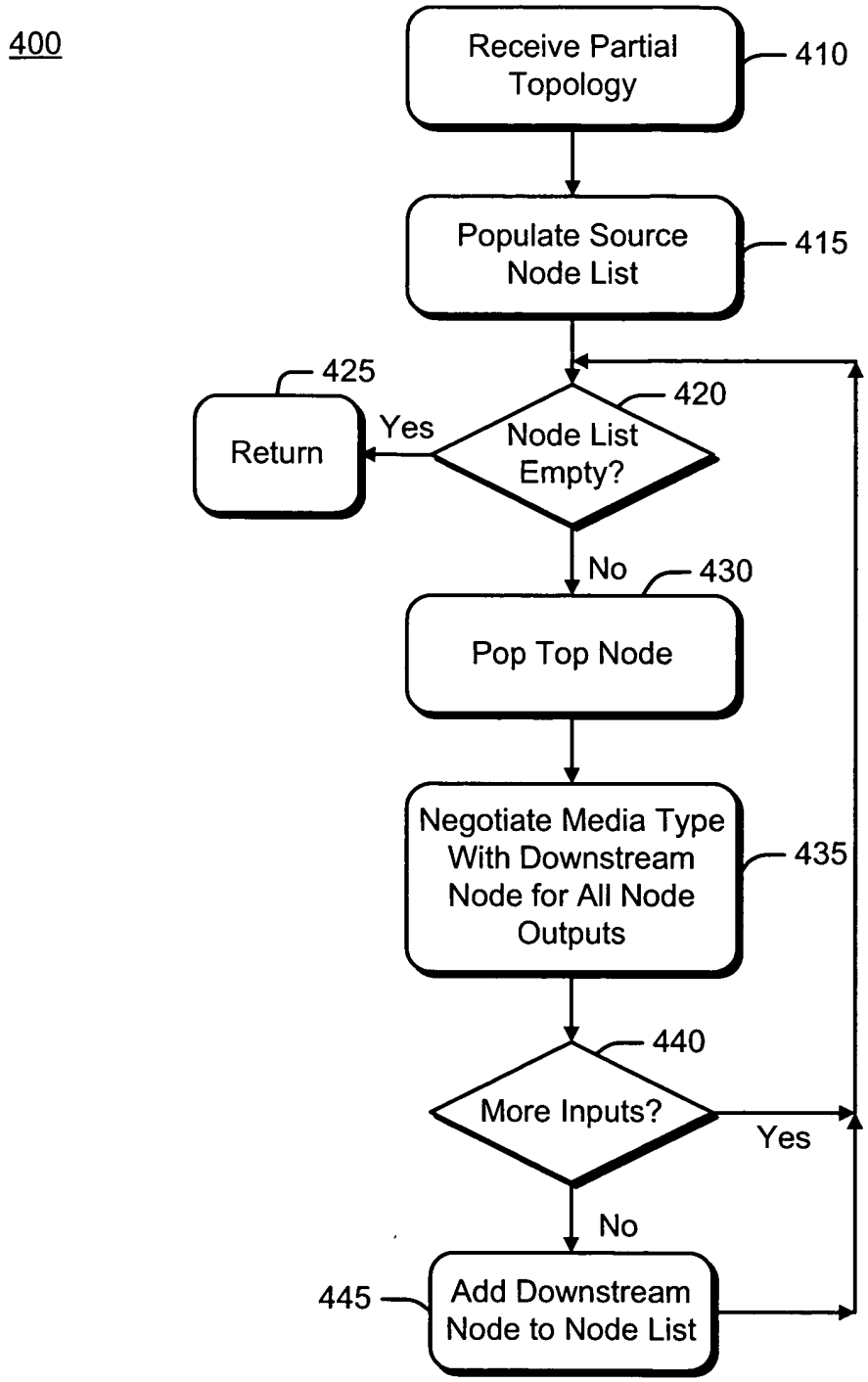
400
Receive Partial Topology
410
Populate Source Node List
415
425
Return
Yes
420
Node List Empty?
No
430
Pop Top Node
Negotiate Media Type With Downstream Node for All Node Outputs
435
440
More Inputs?
Yes
No
445
Add Downstream Node to Node List

Fig. 4

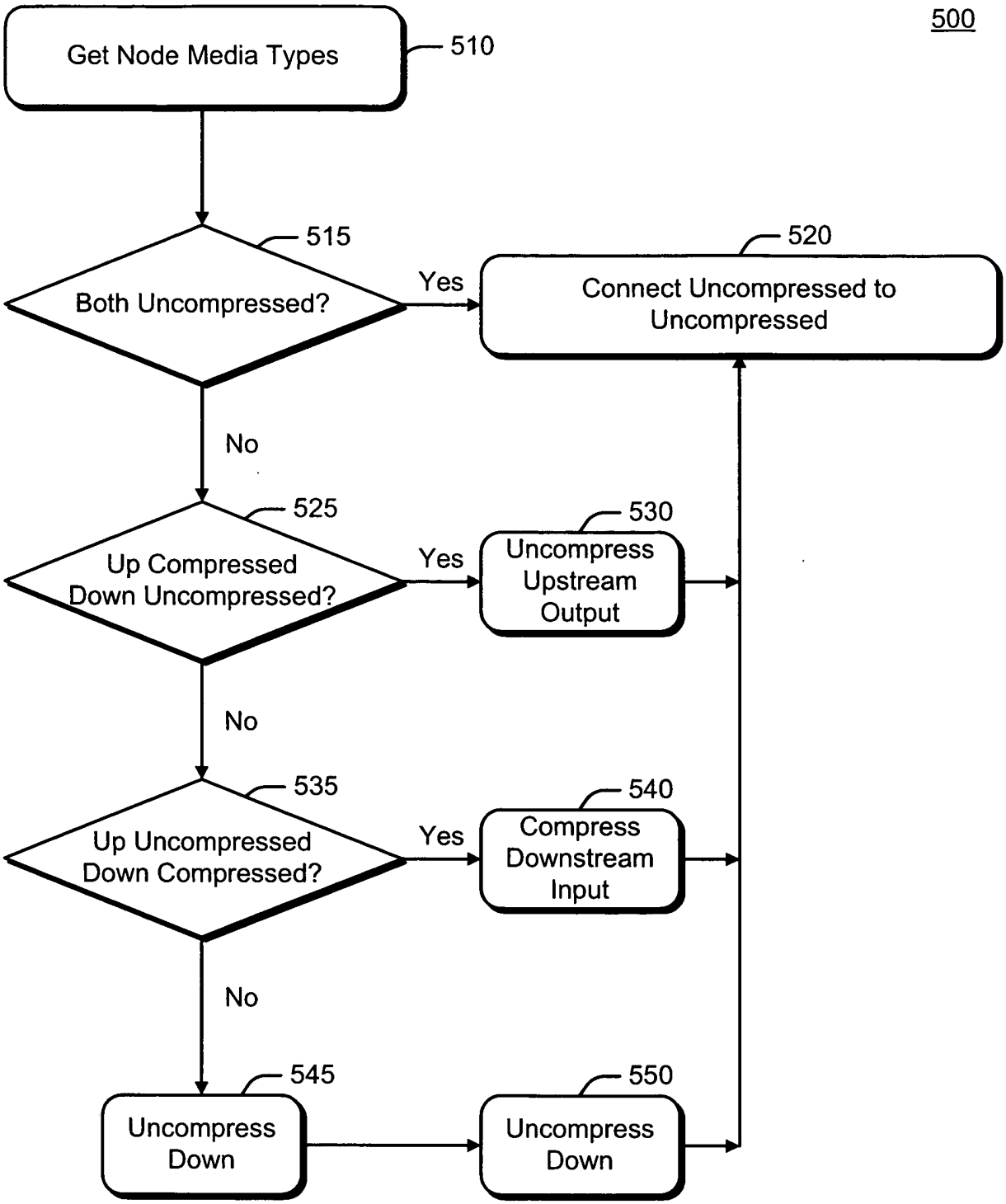
500
Get Node Media Types
510
Both Uncompressed?
515
Yes
Connect Uncompressed to Uncompressed
520
No
Up Compressed Down Uncompressed?
525
Yes
Uncompress Upstream Output
530
No
Up Uncompressed Down Compressed?
535
Yes
Compress Downstream Input
540
No
Uncompress Down
545
Uncompress Down
550

Fig. 5

600

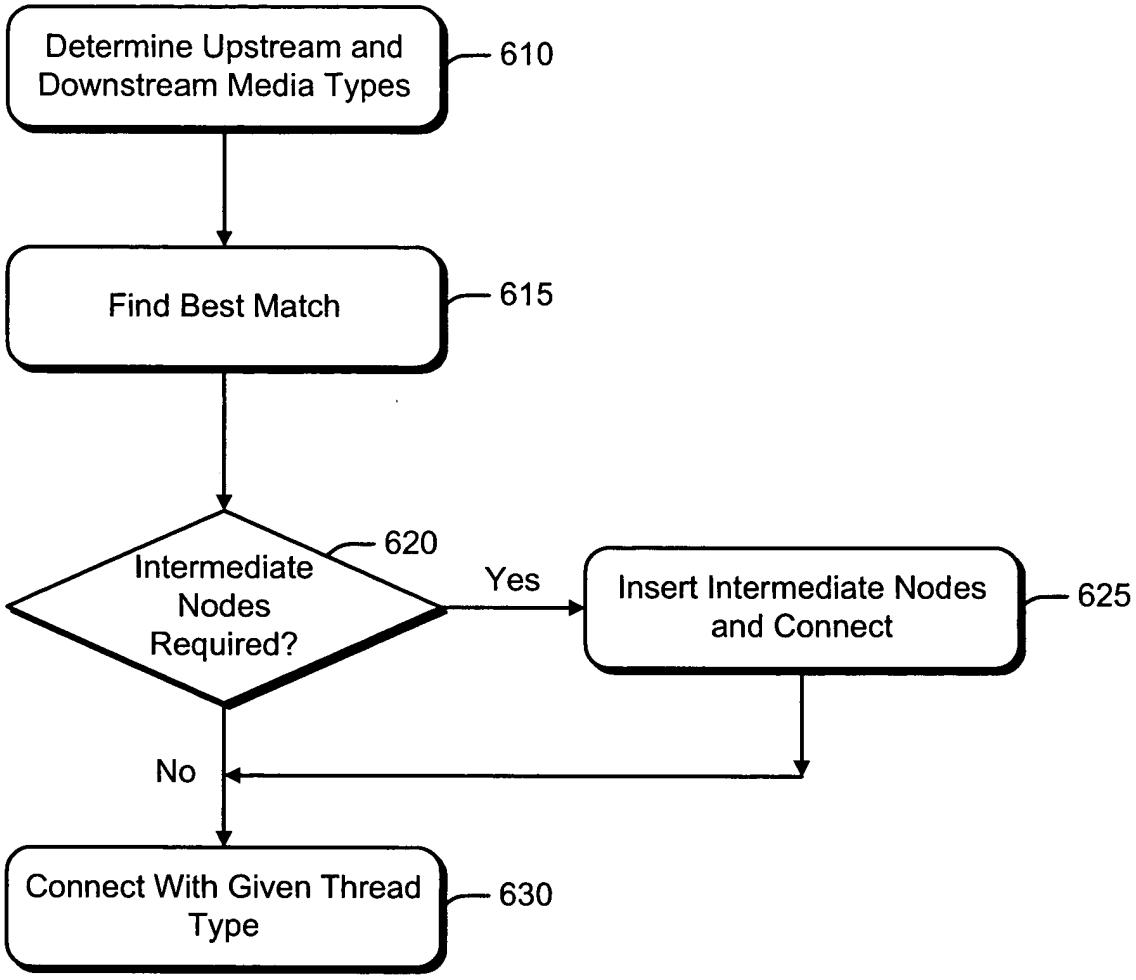
Determine Upstream and Downstream Media Types
610
Find Best Match
615
Intermediate Nodes Required?
620
Yes
Insert Intermediate Nodes and Connect
625
No
Connect With Given Thread Type
630

Fig. 6

700

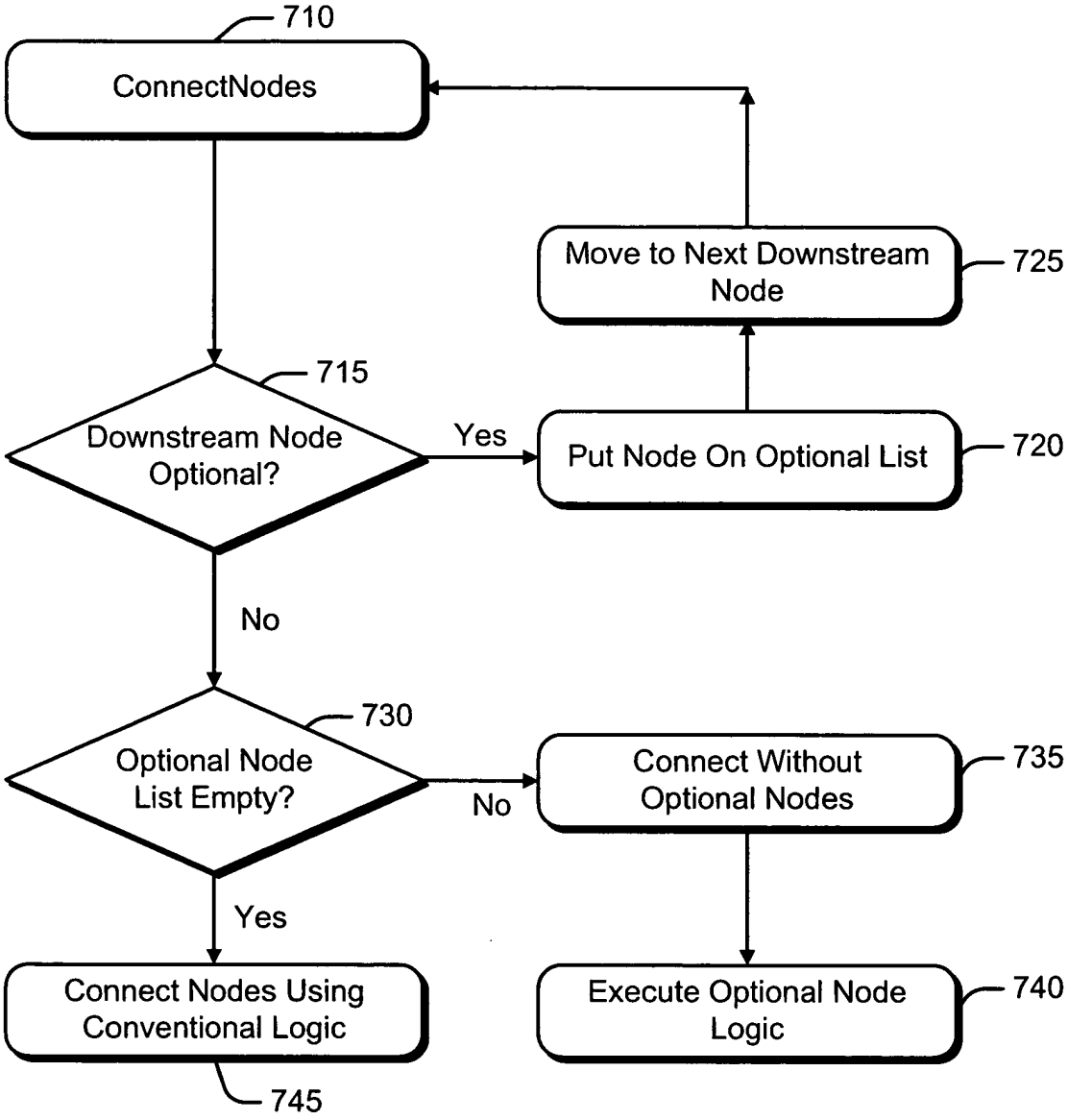
710
ConnectNodes
Move to Next Downstream Node
725
715
Downstream Node Optional?
Yes
Put Node On Optional List
720
No
730
Optional Node List Empty?
No
Connect Without Optional Nodes
735
Yes
Connect Nodes Using Conventional Logic
Execute Optional Node Logic
740
745

Fig. 7

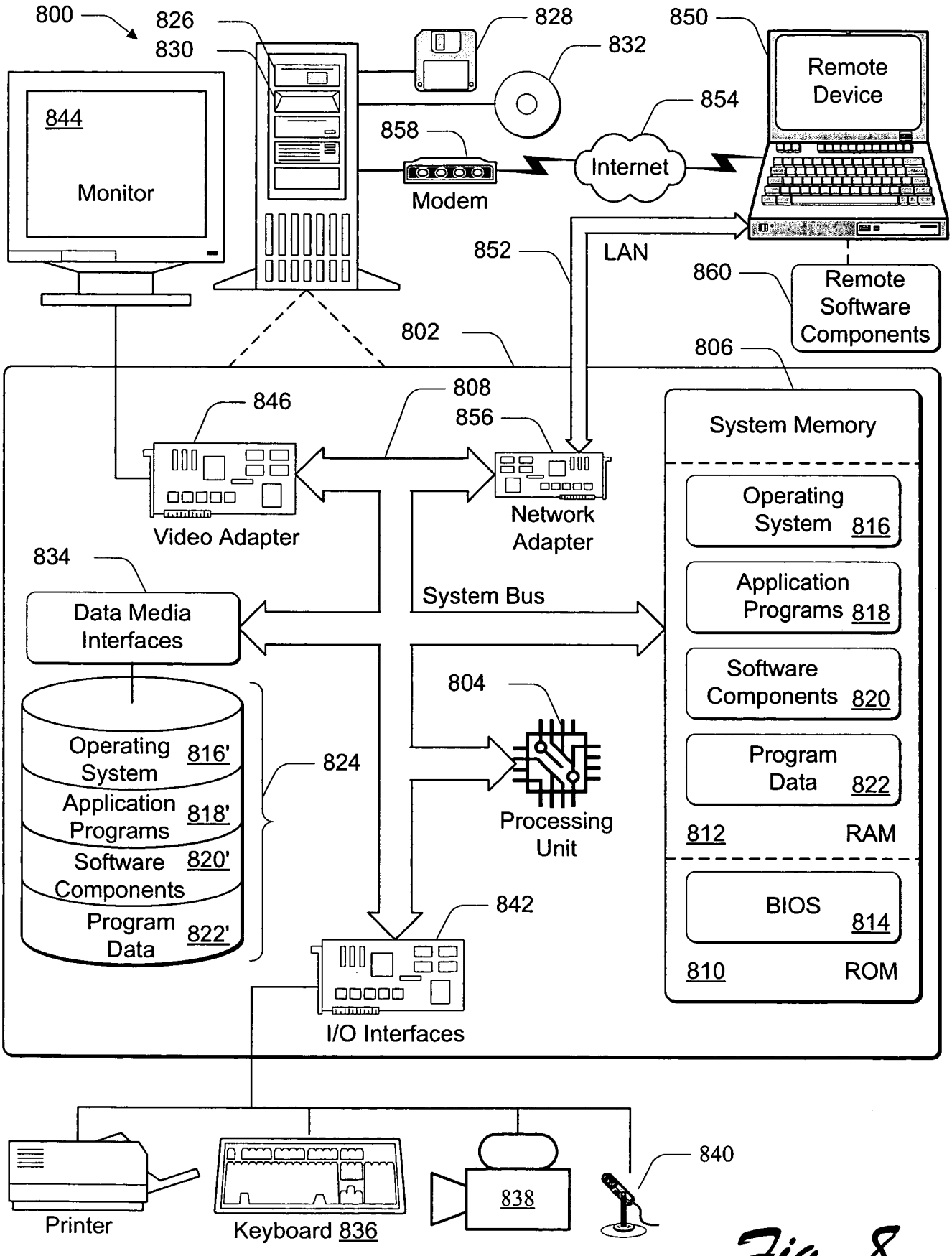
800
826
830
828
832
850
Remote Device
844
Monitor
858
Modem
854
Internet
852
LAN
860
Remote Software Components
802
806
808
846
856
System Memory
Video Adapter
Network Adapter
Operating System 816
Application Programs 818
Software Components 820
Program Data 822
834
Data Media Interfaces
System Bus
804
824
Operating System 816'
Application Programs 818'
Software Components 820'
Program Data 822'
Processing Unit
812
RAM
842
BIOS 814
810
ROM
I/O Interfaces
Printer
Keyboard 836
838
840

Fig. 8